

5/24

SPLT

DART AEROSPACE LTD		Work Order:	23577A
Description: Wheel Assembly		Part Number:	D3233-041
Dwg: D3233 Rev. B		Qty:	8
Ref:		Page 1 of 1	

Step	Location	Procedure	By	Date	Qty																												
1	DC	Issue Traveler	JJ	05.06.15	8																												
2	MFA	Pick: <table border="1"> <thead> <tr> <th>Qty</th> <th>Part Number</th> <th>Description</th> <th>Batch</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>D3233-7</td> <td>Shaft Sleeve</td> <td>B23002</td> </tr> <tr> <td>1</td> <td>D3233-9</td> <td>Tire &amp; Rim Assembly</td> <td>B22987 B22421A</td> </tr> <tr> <td>1</td> <td>D3332-5</td> <td>Hub Sleeve</td> <td>B23001A</td> </tr> <tr> <td>2</td> <td>NKI 30/20</td> <td>Bearing &amp; Inner Sleeve</td> <td>M17346 M16867</td> </tr> <tr> <td>4</td> <td>Shim Stock</td> <td>0.004" thick Brass Shim Stock</td> <td>M17235</td> </tr> <tr> <td>2</td> <td>35x45x7</td> <td>Axel Seal</td> <td>M17346</td> </tr> </tbody> </table> or CR 35x45x7 HMS4 R	Qty	Part Number	Description	Batch	1	D3233-7	Shaft Sleeve	B23002	1	D3233-9	Tire & Rim Assembly	B22987 B22421A	1	D3332-5	Hub Sleeve	B23001A	2	NKI 30/20	Bearing & Inner Sleeve	M17346 M16867	4	Shim Stock	0.004" thick Brass Shim Stock	M17235	2	35x45x7	Axel Seal	M17346	CPL	05/06/15	8
Qty	Part Number	Description	Batch																														
1	D3233-7	Shaft Sleeve	B23002																														
1	D3233-9	Tire & Rim Assembly	B22987 B22421A																														
1	D3332-5	Hub Sleeve	B23001A																														
2	NKI 30/20	Bearing & Inner Sleeve	M17346 M16867																														
4	Shim Stock	0.004" thick Brass Shim Stock	M17235																														
2	35x45x7	Axel Seal	M17346																														
3	MFA	Press out bearings that are supplied with D3233-9 wheel and discard them.	CPL	05/06/15	8																												
4	MFA	Cut shims and assemble as per Dwg D3233	CPL	05/06/15	8																												
5	MFA	Spray inside hub and bearing with LPS-3 & block hole with a clean dry rag for storage.	CPL	05/06/15	8																												
6	QC5	Inspect work to Step 5	2	05.06.17	8																												
7	ST	Identify and Stock	CPL	05/06/17	8																												
8	AC	Cost / part: 187.78	AP	05/06/27	8																												
9	DC	Close W/O 187.78 Inspect Level 21	JJ	05.06.28	8																												

Rev	Date	Change	Revised By	Approved
A	05.01.12	New issue	KJ/JLM	
B	05.03.03	Made in house	KJ/JLM	

3233-9  
B23003A 3  
B23003A 2  
w/o 23577 13

RELEASED  
05/03/15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

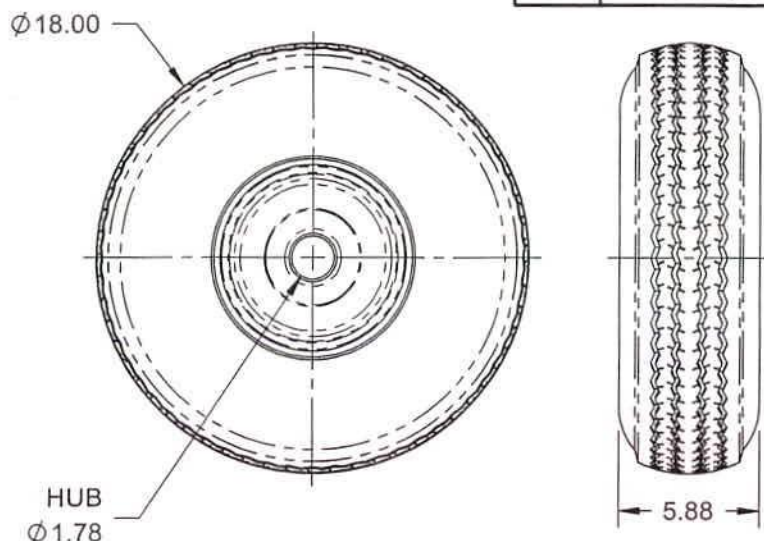
NOTE: Date & initial all entries

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_





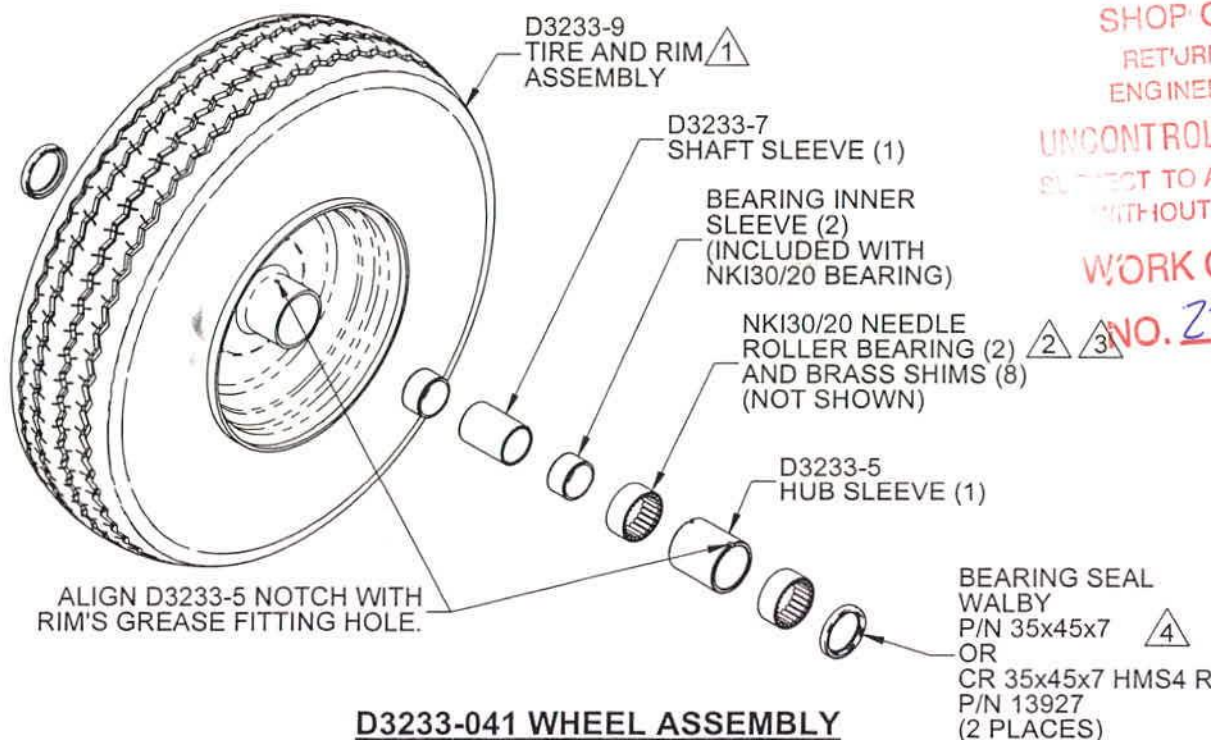
DESIGN 13	DRAWN BY 13	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED 13	APPROVED 13	DRAWING NO. D3233	REV. B SHEET 1 OF 3
DATE 05.03.08		TITLE WHEEL ASSEMBLY	SCALE 1:1
A	05.02.18	NEW ISSUE	
B	05.03.08	ADDED BEARING SEALS	



RELEASED  
05/05/04

WHEEL SPECIFICATIONS		
SIZE	MAXIMUM LOAD	MAXIMUM INFLATION LOAD
TIRE: 19.0 x 5.8 RIM: 5.70 x 8.0	910 LBS (RANGE C)	90 PSI*

\* MANUFACTURER'S RECOMENDATIONS  
ARE 75 PSI FOR HIGH SPEED USE.



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WORK ORDER  
NO. 23577

### D3233-041 WHEEL ASSEMBLY

#### NOTES:

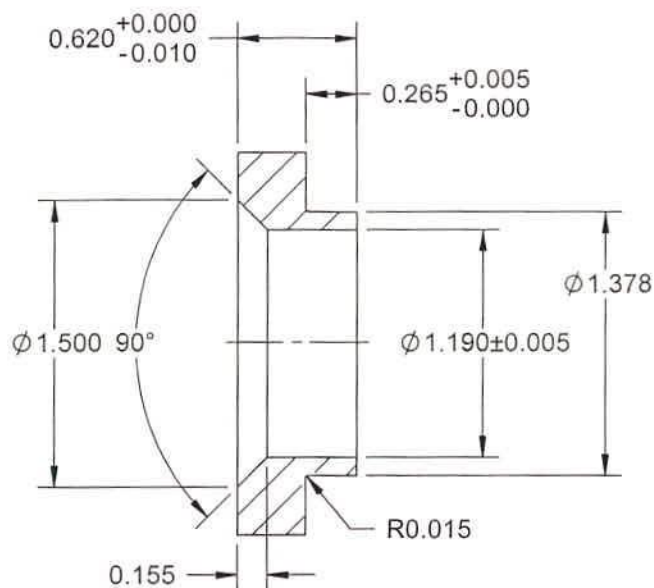
- 1) POSSIBLE SUPPLIER: McMASTER-CARR, P/N 8353T74
- 2) POSSIBLE SUPPLIER: GENERAL BEARING
- 3) PRESS FIT NEEDLE ROLLER BEARINGS INTO RIM HUB WITH  
(4) 0.5 X 0.75 X 0.004 BRASS SHIMS PER BEARING, (1) AT EACH QUADRANT.
- 4) POSSIBLE SUPPLIER: GENERAL BEARING
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

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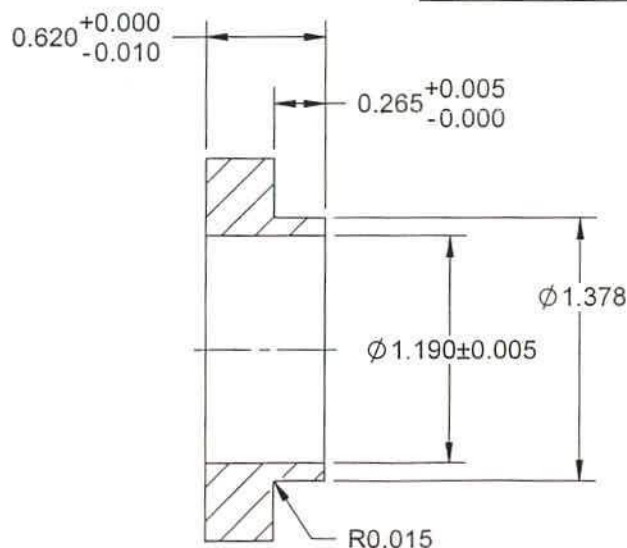


DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3233	REV. B SHEET 2 OF 3
DATE 05.03.08		TITLE WHEEL ASSEMBLY	SCALE 1:1



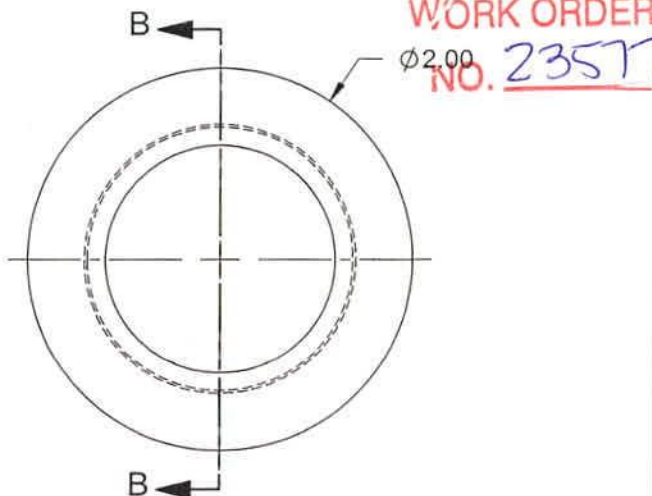
SECTION A-A

D3233-1 INSIDE WASHER



SECTION B-B

D3233-3 OUTSIDE WASHER



NOTES:

- 1) MATERIAL: AISI 1020-1025 ROUND TUBING PER MIL-T-5066 OR ASTM A513-00 MT1020 SRA OR AMS 5075 OR AMS 5077, COLD DRAWN, SEAMLESS (REF. DART SPEC. M1020TR)
- 2) FINISH: POWDER COAT FIRE RED (REF. 4.3.5.10) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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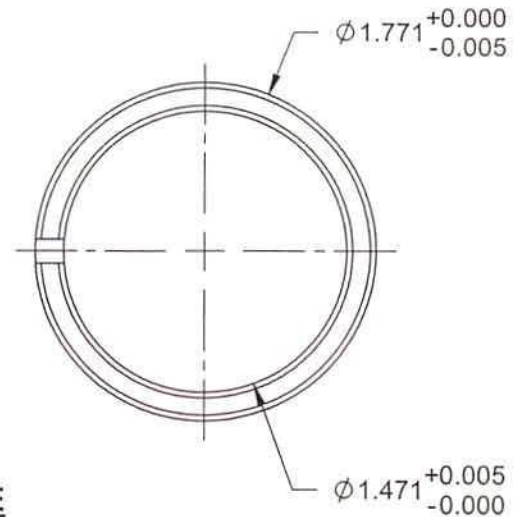
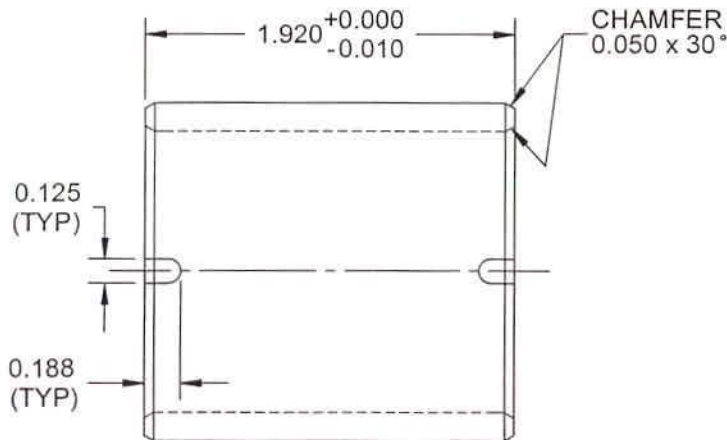
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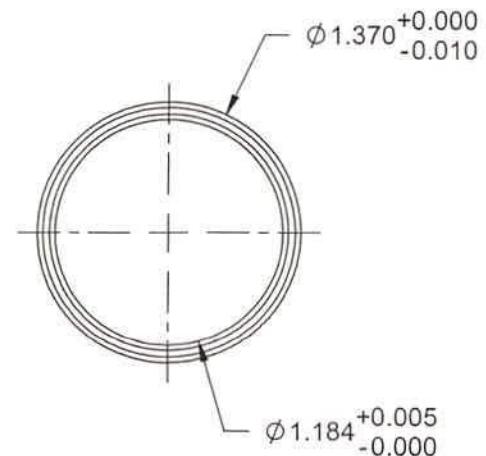
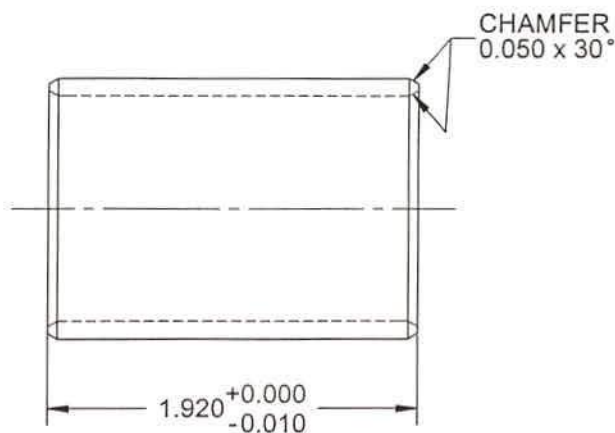


DESIGN 13	DRAWN BY 13	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED RF	APPROVED WBS	DRAWING NO. D3233	REV. B SHEET 3 OF 3
DATE 05.03.08	TITLE WHEEL ASSEMBLY		SCALE 1:1

RELEASED  
WBS  
05/05/04



**D3233-5 HUB SLEEVE**



**D3233-7 SHAFT SLEEVE**

**NOTES:**

- 1) MATERIAL: AISI 1020-1025 ROUND TUBING PER MIL-T-5066 OR ASTM A513-00 MT1020 SRA OR AMS 5075 OR AMS 5077, COLD DRAWN, SEAMLESS (REF. DART SPEC. M1020TR)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.010 TO 0.030

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NO. 23577

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# Job Costing Report

Dart Aerospace Ltd.  
Hawkesbury

Jun 15, 2005  
10:32 am

Work Order No : 0023577  
Project Name : D3233-041  
Project For : WK524  
Work Order Type : Main  
Main WO Number :  
House Part Number : D3233-041  
Description : Wheel Assembly  
Manufactured : Yes  
Amount Req'd : 8  
Amount Done : 0  
Start Date : 06-15-05  
Est Finish Date : 06-17-05  
Act Finish Date :  
Drawings Req'd : No  
Ok for Approval :  
Approval Rec'd :

Department Code:  
Burden Flags : NNNNNNN  
WO Status : Open  
Invoice State : Not Invoiced  
Invoice Date :  
Invoice Number :  
Invoice Amount : 0.00  
Order Entry No :  
OE Value : 0.00  
Est Mark Up : 0.000%  
Actual Mark Up : 0.000%  
\$0 Posted to Finished Goods

	Estimated	Actual	Var. %	Posted	To Post
Material Cost	0.00	0.00	0.00	0.00	0.00
Engineering Hours	0.00	0.00	0.00		
Engineering Cost	0.00	0.00	0.00	0.00	0.00
Production Hours	0.00	0.00	0.00		
Production Cost	0.00	0.00	0.00	0.00	0.00
Packaging Hours	0.00	0.00	0.00		
Packaging Cost	0.00	0.00	0.00	0.00	0.00
OverHead Hours	0.00	0.00	0.00		
OverHead Cost	0.00	0.00	0.00	0.00	0.00
CNC Hours	0.00	0.00	0.00		
CNC	0.00	0.00	0.00	0.00	0.00
Misc. Hours	0.00	0.00	0.00		
Misc.	0.00	0.00	0.00	0.00	0.00
Burden	0.00	0.00	0.00		
Total Cost	0.00	0.00	0.00		
Mark up	0.000	0.000			
Selling Cost	0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done	0.00	0.00
Profits/(Loss)	0.00	0.00



# ENGINEERING CHANGE NOTICE P304-664/

<b>DART AEROSPACE LTD</b>		<b>ECN #:</b> 664	
Date: 05.02.21			
Project No: D412-738/D206-739/D350-740		Created By: <i>[Signature]</i>	Checked By: <i>[Signature]</i>
Project Name: DUAL DISABLING KITS		Approved By: (Proj. Manager) <i>[Signature]</i>	Approved By: (Management if reqd) <i>[Signature]</i>
Description of Change: RELEASE: D3368 REV. A ✓ D3384 REV. A ✓ 11N-D412-738 REV. A 11N-D350-740 REV. B D3233 REV. A1 ✓			

Notification/Acceptance	Affected	Initials	Authorization
QA	✓		<i>[Signature]</i> OK
Production	✓		
Planning	✓		
Marketing	N/A		

Engineering Actions	Yes	No	Responsible	To happen by:	Complete
Update Blue/Pink File	✓	✗	KJ	05.02.28	05.02.28 <i>[Signature]</i>
Update DSI File		✓			
Update D-Part Master Binder	✓		KJ	05.02.28	05.02.28 <i>[Signature]</i>
Update Grey Project Binder	✓	✗	KJ	05.02.28	05.02.28 <i>[Signature]</i>
Update DEO Binder		✓			
Update Master Document List		✓			
Update Drawing Approval Record		✓			
Update Change Record Form	✓		RF	05.02.28	05.02.28 <i>[Signature]</i>
Move Electronic File	✓		KJ	05.02.28	05.02.28 <i>[Signature]</i>
Notify TCA of Change		✓			
Notify FAA of Change		✓			
Update QSI 021		✓			
Update QSI 036		✓			
Scan Documents		✓			
Update MIS Database	✓		KJ	05.02.28	05.02.28 <i>[Signature]</i>
Update Access Database	✓		KJ	05.02.28	05.02.28 <i>[Signature]</i>
Verification ARC		✓			
Create/Update STC Approval List		✓			
Create/Update IPP's	✓		JLM	05.03.14	05.03.14 <i>[Signature]</i>
Create/Update BOM's	✓		KJ	05.03.14	05.03.14 <i>[Signature]</i>
Create/Update PPP's	✓	✗	KJ	05.02.28	05.02.28 <i>[Signature]</i>
Update Paperwork Kits in Production	✓	✗	KJ	05.02.28	05.02.28 <i>[Signature]</i>
Update Paperwork Kits in Stock	✓	✗	KJ	05.02.28	05.02.28 <i>[Signature]</i>
Rework/Scrap Current Production		✓			
Rework/Scrap Kits in Stock?		✓			
Create/Update Laminated Dwgs		✓			
Create/Update Controlled Dwgs	✓		KJ	05.02.28	05.02.28 <i>[Signature]</i>
Create/Update FAI sheets	✓		JLM	05.03.08	05.03.08 <i>[Signature]</i>
Create/Update CNC Programs	✓		JLM	05.03.08	05.03.08 <i>[Signature]</i>
Create/Update Tooling	✓		JLM	05.03.08	05.03.08 <i>[Signature]</i>
Create/Update DXF File		✓			
MPP required?		✓			
Notify Previous Customers		✓			
Notify Eurocopter France		✓			

**Notes:**  
 - COM'S & IPP'S ARE ALREADY DONE FOR D412-738  
 - CNC PROGRAM FOR D3368 ALREADY DONE  
 - UPDATE IPP & BOM FOR D3233 REV. A1 / D350-740-011 / D355-740-013 BOTH AT CHG 002  
 - CORRECT P/N IN INVENTORY FOR D3233-9 INSTEAD OF D3233-041 FOR RECEIVING TIRES.  
 - D350-740-011 & D355-740-013 CHG 002  
 - UPDATE PAPERWORK D350-740 IN STOCK / PRODUCTION  
 D3233 REV A1 IS SUPERCEDED BY REV B. IPP/BOM done 05.03.14 *[Signature]*